

## Public School Retirement System of Missouri



Comprehensive Annual Financial Report For the Year Ended June 30, 1996

## THE PUBLIC SCHOOL RETIREMENT SYSTEM OF MISSOURI

701 West Main Street P.O. Box 268 Jefferson City, MO 65102



## COMPREHENSIVE ANNUAL FINANCIAL REPORT FISCAL YEAR ENDED JUNE 30, 1996

Prepared by the Finance and Investment Staff

## **Mission Statement**

## **Public School Retirement System**

The Public School Retirement System of Missouri (PSRS) was created and exists in partnership with the member school districts of this state to provide career teachers and their families with a primary source of income relative to their service and compensation in the event of their retirement, death, or disability.

It is the fiduciary responsibility of those charged with administration of PSRS to: a) effectively collect contributions, b) prudently invest the assets to obtain and maintain the long-term, optimum value of the fund, and c) to administer the benefits impartially and in accordance with applicable law.

The Board of Trustees and staff will provide such services to the members and beneficiaries professionally, promptly and courteously in the most prudent and cost-efficient manner possible.

INTRODUCTORY SECTION





	TABLE OF CONTENTS
INTRODUCTORY SECTION	
5	Table of Contents
6	Board of Trustees
7	Letter of Transmittal
11	GFOA Certificate of Achievement
12	PSRS Organization Chart
13	Consultants
FINANCIAL SECTION	
	Basic Financial Statements
17	Certification of Evers and Company, CPAs
18	Statement of Plan Net Assets
19	Statement of Changes in Plan Net Assets
20	Notes to the Financial Statements
	Required Supplementary Information
26	Schedule of Funding Progress
26	Schedule of Employer Contributions
27	Notes To The Schedules of Trend Information
27	Schedule of Investment Expenses
28	Schedule of Administrative Expenses
INVESTMENT SECTION	
31	Report of Strategic Investment Solutions
32	Report of Mark Caplinger, Investment Officer
36	Total Fund Investment Returns
37	Asset Class Investment Returns
38	Asset Allocation
39	Investment Manager Structure
40	Domestic Fixed Income Composite Information
41	Domestic Equity Composite Information
42	International Equity Composite Information
43	Total Fund Growth
44	Investment Summary
46	Brokerage Commissions Paid
46	Investment Expenses
ACTUARIAL SECTION	
49	Certification of W. Alfred Hayes and Company, Actuary
50	Summary of June 30, 1996 Actuarial Valuation Results
51	Calculations of Gains and Losses
52	Summary of Actuarial Methods and Assumptions
53	Schedule of Active Member Valuation Data
53	Solvency Test
54	Schedule of Retirees and Beneficiaries Added to and Removed from Roll
55	Summary of Plan Provisions
STATISTICAL SECTION	
59	Schedule of Revenue by Source/Expenses by Type
60	Schedule of Retirees and Benefits by Type
60	Average July Retiree Statistics
61	Average Monthly Benefit
61	Summary of Changes in Retirees

62

63

64

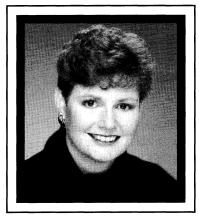
Analysis of 1995-96 Retirees

Analysis of Active Members

Comparison of Actuarial Assets and Total Actuarial Liabilities



## Board of Trustees June 30, 1996



Chairman
Appointed Member
June 30, 1996



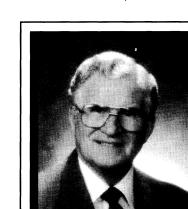
Nancy Gaines Elected NTRS Member June 30, 1998



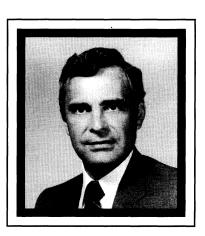
Mary Lou Anderson Elected PSRS Member June 30, 1996



James Daniels
Elected PSRS Member
June 30, 1996



William J. Wasson Appointed Member June 30, 1998



Robert E. Bartman Ex-officio Commissioner of Education



**Veronica Hambacker** Elected PSRS Member June 30, 1998



## THE PUBLIC SCHOOL RETIREMENT SYSTEM OF MISSOURI

M. STEVE YOAKUM EXECUTIVE DIRECTOR

JOEL M. WALTERS

ASST. EXECUTIVE DIRECTOR

December 1, 1996

PATTIE L. PORTERFIELD

ADMINISTRATOR

## To the Board of Trustees and Members of The Public School Retirement System of Missouri:

We are pleased to present the Comprehensive Annual Financial Report of the Public School Retirement System of Missouri for the 1995-96 fiscal year. This report is designed to provide you with information on the financial operations of the system, our stewardship of the funds entrusted to the system and our compliance with all legal requirements. We are responsible for the accuracy of the contents and the completeness and fairness of the presentation. To the best of our knowledge and belief, the enclosed information is accurate in all material respects and is reported in a manner to present fairly the financial position and results of operations of the system. We hope this annual financial report enhances your understanding of the purpose, structure and operations of the Public School Retirement System.

This comprehensive annual financial report consists of five sections:

- Introductory Section--information on both the PSRS Board of Trustees and system administration and the transmittal letter which summarizes PSRS activities during 1995-96;
- · Financial Section--the presentation of the financial statements and auditor's opinion letter;
- Investment Section -- a summary of the investment activities during the year, including investment performance;
- Actuarial Section--the annual actuarial valuation results including a summary of major actuarial assumptions; and
- Statistical Section -- significant data regarding the system and its operations.

The Public School Retirement System is a public cost-sharing multiple-employer retirement system designed to provide pension benefits to the certificated employees of public school and junior college districts in Missouri. The system also administers survivor benefits as well as a disability retirement program.

## **Investments**

During 1995-96 the Board of Trustees adopted a revised and much more detailed investment policy that serves as a reference point for managing the assets of the retirement system. The asset allocation policy and investment manager structure were redesigned to optimize the risk and return profile of the investments. These projects resulted in a significant shift in the investment philosophy of the retirement system, from a heavy concentration of long-term government securities to a well-diversified mix of domestic stocks, international stocks, and domestic bonds. Consequently, the system's investments were completely restructured over the course of the fiscal year. The process began with an exhaustive search process and competitive analysis of proposals by the major providers of custody services in the country, after which State Street Bank and Trust Company was hired as the master custodian for the system. Following this, a number of investment manager searches were undertaken, resulting in a team of some of the most well-respected firms in the industry.

PSRS' investment portfolio generated a 12.8 percent return for the fiscal year ended June 30, 1996. The fund underperformed relative to the public fund median return, due largely to an underweighting in domestic equities. The restructuring of the fund also caused some drag on performance that will not be a factor in the 1997 fiscal year. PSRS easily exceeded its actuarially required return of 8 percent by 4.8 percent, and produced a real return net of inflation of over 10 percent. For the five year period ended June 30, 1996, the fund returned 11.6 percent, matching the public fund median return.



### **Benefits**

Benefits paid by the retirement system are set forth in state statutes. Legislative changes to the benefit structure during the 1995 legislative session provided increased minimum benefits to retirees, added a \$2 per year of service increase in monthly benefits to persons retiring before June 1994 (up to a maximum increase of \$60), revised joint and survivor options offered by the system, added two term-certain optional plans and offered a reduced benefit to members not yet age 55 but having 25 - 29.9 years of credit. Two additional purchases, supplemental credit and not-for-profit educational agency service, were added to the retirement plan.

## **Financial Summary**

The management of PSRS is responsible for designing and maintaining a system of adequate and effective internal accounting controls. These controls protect and safeguard the assets of the system and provide for the reliability of financial records.

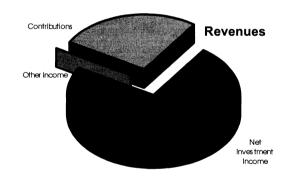
PSRS' financial statements are prepared using the accrual basis of accounting. Both member and employer contributions are required by state statute and are recognized in the period in which the employee services are performed. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Expenses are recognized when the liability is incurred, regardless of when payment is made.

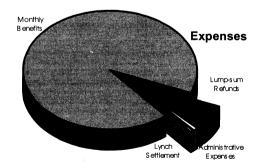
This report is prepared in conformity with generally accepted accounting principles for public employee retirement systems using Governmental Accounting Standards Board (GASB) Statement 25.

Revenues--Employer and member contributions and investment income are accumulated to finance the future payment of retirement benefits. Contributions increased to \$488 million, partially because of the increase in the contribution rate from 10% in 1994-95 to 10.5% in 1995-96. The investment income shown is the net income after investment expenses were deducted. Net investment income during 1995-96 decreased 6.7% because of the decrease in fixed income investments and transition costs incurred during the asset reallocation.

**Expenses**--The monthly benefits paid to retirees and beneficiaries, the lump-sum refunds made to former members and the expenses of administering the system are the principal costs of operation. Total system expenses increased 6.3% during the 1995-96. Components of that increase were:

(in millions)	<u> 1996</u>	<u>1995</u>
Monthly benefits	\$349.7	\$300.6
Lump-sum refunds	23.3	19.7
Administrative expenses	3.8	2.8
Lynch settlement (net)	2.0	
1		







## **Funding Status**

PSRS is a defined benefit plan. A defined pension benefit plan is totally funded when it has enough money in reserve to meet all expected future obligations to participants. Benefit increases and adverse actuarial experience create unfunded liabilities which are amortized over the funding period. The greater the level of funding, the larger the ratio of assets accumulated to the actuarial liability. The advantage of a well-funded plan is that the participants can look at assets that are committed to the payment of benefits.

Contributions to PSRS are made with current service financed on a current basis. Prior service liabilities are amortized over a period not to exceed 30 years. The funding objective of the system is to finance promised benefits through contributions to the system that are approximately level as a percentage of payroll, not to exceed the statutory limitation of 10.5% for members with a matching amount contributed to the system by the employer.

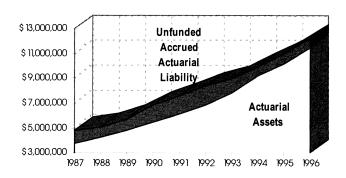
The actuarial valuation for June 30, 1996 resulted in an accrued actuarial liability of \$12.2 billion for current and future benefit payments.

The actuarial assets are a five-year smoothed asset valuation (to allow a stable contribution rate) and were valued at \$11.5 billion for June 30, 1996.

The difference between the actuarial assets and the actuarial liability is the unfunded accrued actuarial liability which, as a result of Board of Trustee action in October 1996, will be amortized over 20.5 years based on the current 10.5% contribution rate.

## **PSRS Unfunded Actuarial Liabilities**

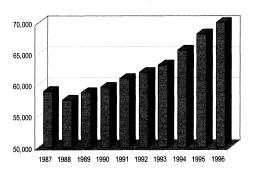




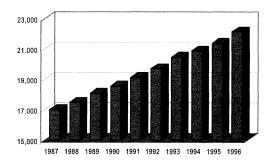
## Member and Retirees Served by the Retirement System

The net membership of the system increased by 2,336 during 1995-96. New service retirees during the year numbered 1,330 and there were 44 new disability retirees. At June 30, the system was paying 20,075 service retirees, 567 disability retirees, 1,151 beneficiaries of retirees, and 339 survivor benefit recipients.

## **Membership Growth**



## **Benefit Payment Growth**



## Administration

The new automated accounting system was implemented during the 1995-96 year. The new system integrates the general ledger, accounts payable, payroll, human resources and fixed asset functions.



Legislation passed in 1995 authorized the Board of Trustees to appoint the general counsel to serve as legal advisor to the Board. After a review of several firms, Thompson-Coburn of St. Louis was selected.

Lynch, et al, v. Public School Retirement System, et al, litigation was settled in the fall of 1995. Payments were made by the retirement system to class members during the spring and summer of 1996. The retirement system provided \$2 million of the settlement and the remaining \$23 million was provided by the State of Missouri through the retirement system covering state employees. The settlement process was completed in the fall of 1996.

## **Future Initiatives**

As we complete our 50th year of service to Missouri's educators, it remains crucial for PSRS to look forward and ask important questions concerning the expected role and effectiveness of the retirement system in the next millennium. We believe that PSRS plays an important role in Missouri's educational system by providing important benefit tools for our public schools to use to help attract and retain the best teachers possible. In order to be certain that we are providing this important service in the most effective manner possible, the Board of Trustees and management of PSRS are in the beginning stages of a strategic planning process. This program, named Project 2000, will cause the Board and staff to focus on the goals and objectives of PSRS, how our retirement plan affects Missouri's educational system and how we can best effectively deliver these important benefits and services. The Board has retained the Segal Company, a highly experienced and respected benefit consulting firm to assist us in this important project which is scheduled to begin in early 1997. We plan that Project 2000 will allow PSRS to be a more focused, member-driven organization providing the benefits wanted and needed by Missouri's teachers in the most cost effective and efficient manner possible. We will keep the membership informed as this important project progresses.

## **Certificate of Achievement**

The Government Finance Officers Association of the United States and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to the Public School Retirement System of Missouri for its comprehensive annual financial report for the fiscal year ended June 30, 1995. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report, the contents of which conform to program standards. Such reports must satisfy both generally accepted accounting principles and applicable legal requirements. We believe this report continues to conform to the Certificate of Achievement program requirements and we are submitting it to the Government Finance Officers Association to determine its eligibility for another certificate.

## **Professional Consultants**

An audit of PSRS was conducted by the independent audit firm of Evers and Company. The auditor's report on the financial statements is included in the Financial Section. An annual actuarial valuation was performed by W. Alfred Hayes & Company. The actuarial part is presented in the Actuarial Section.

Other professional consultants are employed by the Board of Trustees to provide services necessary for the efficient operation of the system. Identification of PSRS consultants can be found on pages 13 and 39.

## **Acknowledgments**

This report reflects the combined efforts of the PSRS finance and investment staffs. We would like to express our gratitude to the staff, Board of Trustees, consultants and others associated with the retirement system who helped ensure the successful operation of The Public School Retirement System during the 1995-96 year.

M. Steve Yoakum Executive Director Virginia S. Brizendine Chief Financial Officer



## **Certificate of Achievement**

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

## The Public School Retirement System of Missouri

For its Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 1995

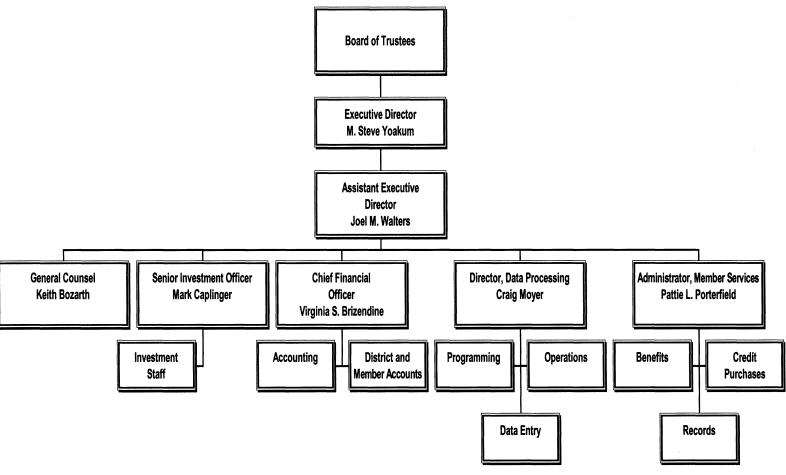
A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.

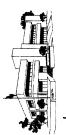


Athur R. Lynch President

**Executive Director** 

## THE PUBLIC SCHOOL RETIREMENT SYSTEM OF MISSOURI **JUNE 30, 1996**







## **CONSULTING SERVICES**

(See Page 39 for Investment Advisors and Services)

## **ACTUARY**

W. Alfred Hayes and Company St. Louis, Missouri

## **AUDIT SERVICES**

Evers & Company
Jefferson City, Missouri

## **COMPUTER CONSULTANT**

Huber & Associates, Inc. Jefferson City, Missouri

## **INSURANCE CONSULTANT**

Charlesworth & Associates
Overland Park, Kansas

## **LEGAL COUNSEL**

Armstrong, Teasdale, Schlafly & Davis Kansas City, Missouri

Thompson-Coburn St. Louis, Missouri

## **MEDICAL ADVISOR**

Dr. Robert H. Tanner Jefferson City, Missouri



FINANCIAL SECTION









Elmer L. Evers Jerome L. Kauffman Richard E. Elliott Dale A. Siebeneck Keith L. Taylor Lynn J. Graves D. Greg Goller

To the Board of Trustees of the Public School Retirement System of Missouri

## INDEPENDENT AUDITORS' REPORT

We have audited the financial statements of the Public School Retirement System of Missouri as of and for the years ended June 30, 1996 and 1995, as listed in the accompanying table of contents. These financial statements are the responsibility of the retirement System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial status of the Public School Retirement System of Missouri as of June 30, 1996 and 1995, and the results of its changes in its financial status for the years then ended in conformity with generally accepted accounting principles.

Our audit was made for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying supplemental schedules of funding progress and employer contributions, included on pages 9 and 10, are supplementary disclosures under Governmental Accounting Standards Board statement no. 25, and are not a required part of the financial statements. The supplementary information included in pages 10 and 11 is presented for purposes of additional analysis and is not a required part of the basic financial statements of the Public School Retirement System of Missouri. Such information, included on pages 9 through 11 has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly presented in all material respects in relation to the basic financial statements taken as a whole.

Evers & Company, CPA's

EVERS & COMPANY Certified Public Accountants Jefferson City, Missouri

October 10, 1996

520 Dix Road Jefferson City, Missouri 65109 573/635-0227 FAX 573/634-3764 Village Green Shopping Center 1021 W. Buchanan Street, Ste. 10 California, Missouri 65018 573/796-3210 FAX 573/796-3452 Route 3, Box 4230 Osage Beach, Missouri 65065 573/348-4141 FAX 573/348-0989

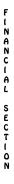


## **STATEMENT OF PLAN NET ASSETS As of June 30, 1996 and June 30,1995**

	June 30		
	1996	1995	
ASSETS			
Cash	\$ 1,297,864	\$ 1,109,563	
Receivables			
Contributions	83,500,000	70,000,000	
Accrued Interest and Dividends	62,283,640	115,090,672	
Investment Sales	2,076,476,829	107,037,597	
Other	51,036	306,605	
Total Receivables	2,222,311,505	292,434,874	
Investments, at fair value			
Fixed Income	5,536,290,634	6,416,213,451	
Domestic Stocks	4,209,248,075	3,267,985,882	
International Securities	1,825,717,467	313,258,920	
Securities Lending Collateral	1,755,209,666	2,435,112,255	
FHA Insured Mortgage Loans	46,969	154,292	
Short Term Investments	869,966,669	591,426,652	
Total Investments	14,196,479,480	13,024,151,452	
Prepaid Expenses	90,144	52,995	
Designated for Deferred Compensation	74,454	22,285	
Fixed Assets, net of depreciation	2,059,596	1,590,127	
TOTAL ASSETS	16,422,313,043	13,319,361,296	
LIABILITIES			
Accounts Payable	3,664,692	2,350,517	
Lynch Settlement Payable	492,401		
Securities Lending Collateral	1,755,209,666	2,430,112,255	
Payable to NTRS-Security Lending Collateral		5,000,000	
Investment Purchases	2,343,458,896	45,340,317	
Compensated Absences	124,114	98,671	
Deferred Compensation	74,454	22,285	
TOTAL LIABILITIES	4,103,024,223	2,482,924,045	
Net Assets Held in Trust for Pension Benefits	\$ 12,319,288,820	\$ 10,836,437,251	

see accompanying Notes to the Financial Statements

(A schedule of funding progress is presented on page 26.)





## **STATEMENT OF CHANGES IN PLAN NET ASSETS**For Years Ended June 30, 1996 and June 30, 1995

	19	06	
		130	1995
ADDITIONS			
Contributions:			
Employer	\$ 238,	630,542	\$ 211,865,902
Member	249,	853,794	222,123,756
Total Contributions	488,	484,336	 433,989,658
Lynch Payment:			
Lynch Settlement from MOSERS	23,	000,000	
Lynch Settlement from PSRS Reserves	2,	040,317	
Total Lynch Payments	25,	040,317	
Investment Income			
Realized and Unrealized Gain/Loss		067,742	840,274,923
Interest from Investments		555,233	532,191,605
Interest from Bank Deposits		410,370	118,392
Dividends	99,	299,386	68,139,956
Security Lending Gross Income	94,	022,272	76,334,187
Total Investment Income	1,470,	355,003	 1,517,059,063
Recognition of Previously Deferred Income			32,988,011
Total Recognized Income	1,470,	355,003	 1,550,047,074
Less Investment Expenses			
Investment Management Fees	8,	701,474	6,958,517
Security Lending-Agent Fees		781,913	559,660
Security Lending-Broker Rebates	90,	423,321	74,466,729
Total Investment Expenses	99,	906,708	 81,984,906
Net Investment Income	1,370,	448,295	1,468,062,168
Other Income:			
Purchases/Reinstatement Charges		437,310	388,249
Rental and Service Charges		200,000	150,000
Misc. Income		3,748	2,850
Total Other Income	***************************************	641,058	 541,099
Total Additions	1,884,	614,006	1,902,592,925
DEDUCTIONS			
Monthly Benefits		698,340	300,612,401
Refunds of Contributions	23,	256,013	19,730,847
Administrative Expenses	3,	762,992	2,800,724
Lynch Settlement Payments	25,	041,559	
Extinguishment of Contingent Investment Income Design	nation		32,988,011
Other		3,533	1,280
Total Deductions	401,	762,437	 356,133,263
NET INCREASE	1,482,	851,569	1,546,459,662
Net Assets Held in Trust for Pension Benefits			
Beginning of Year		437,251	9,289,977,589
End of Year	\$ 12,319,	288,820	\$ 10,836,437,251

see accompanying Notes to the Financial Statements



## NOTES TO THE FINANCIAL STATEMENTS

June 30, 1995 and 1996

## **Note 1 -- General Description of the Plan**

The Public School Retirement System of Missouri (PSRS) is a mandatory cost-sharing multiple employer retirement system for all full-time certificated employees and certain part-time certificated employees of all public school districts in Missouri (except the school districts of St. Louis and Kansas City) and all public community colleges. The system also includes certificated employees of PSRS, Non-Teacher School Employee Retirement System, Missouri State Teachers Association and Missouri State High School Activities Association and certain state teachers who elected to remain covered by PSRS under legislation enacted in 1986, 1987 and 1989.

PSRS was established as an independent Trust Fund by an Act of the Missouri General Assembly effective August 1, 1945. Statutes governing the retirement system are found in Chapter 169 RSMo. The retirement system is not subject to direction by any state agency. Responsibility for the operation and administration of the retirement system is vested in a Board of Trustees consisting of three elected PSRS members, one elected member of the Non-Teacher School Employee Retirement System (NTRS), two persons appointed by the State Board of Education (one of whom must be a retired PSRS or NTRS member) and the State Commissioner of Education.

PSRS is a defined benefit plan providing service retirement, death and disability benefits to its members. Service retirement benefits vest after 5 years of creditable service. Members who retire with 5 years of service (on or after age 60), 25 years of service (on or after age 55) or 30 years of service are entitled to an allowance for life. Actuarially reduced retirement benefits are available with 5 years of service at age 55 or with 25 years of service. Members who have not yet reached age 55 but who have between 25 and 29.9 years of credit may retire with a lesser benefit formula during a two-year window that started July 1, 1996. Annual cost-of-living adjustments (COLAs) are provided for eligible service and disability retirees and for surviving beneficiaries receiving payments under optional retirement plans, up to a lifetime maximum of 75% of the original benefit amount.

## Note 2 -- Summary of Significant Accounting Policies

**Basis of Accounting** -- PSRS' financial statements are prepared using the accrual basis of accounting. Both plan member and employer contributions are required by state statute and are recognized in the period in which the employee services are performed. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Expenses are recognized when the liability is incurred, regardless of when payment is made.

**Cash and Cash Equivalents** -- The classification of Cash and Cash Equivalents includes cash and short-term investments with a maturity date within three months of the acquisition date. Cash deposits held by depository banks are fully insured by the Federal Deposit Insurance Corporation. In addition, the following securities were pledged to PSRS by the depository bank:

June 30, 1996		
<u>Description</u>	<u>Maturity</u>	<u>Par Value</u>
FFCB Discount Note	07/01/96	\$ 4,300,000
FHLB Discount Note	07/08/96	6,000,000
FFCB Discount Note	07/15/96	4,000,000
FFCB Discount Note	07/15/96	6,025,000
FNMA Discount Note	08/16/96	6,800,000
US Treasury Note 6%	08/31/97	4,930,000
•		\$32,055,000

June 30, 1995		
<u>Description</u>	<u>Maturity</u>	Par Value
FFCB Discount Note HDGE	11/01/95	3,980,000
FHLB Discount Note	11/24/95	<u>1,550,000</u>
		\$5,530,000
		40,000,000



PSRS has an agreement with the depository bank to sweep available funds into an overnight repurchase agreement. The overnight repurchase agreement was for \$22,791,343.38 on June 30, 1996 and \$7,800,000 on June 30, 1995. This amount was fully collateralized with insured or registered securities held by a third-party agent in the name of PSRS. Generally accepted accounting principles promulgated by the Governmental Accounting Standards Board require disclosure of the custodian credit risk of the collateral on the repurchase agreements. Category 1 includes deposits which are insured or collateralized with securities held by PSRS or its agent in the name of PSRS, category 2 includes deposits which are collateralized with securities held by the pledging financial institution's trust department or agent in the name of PSRS. Category 3 includes deposits which are uncollateralized. The collateral covering the repurchase agreement is in the risk category 1 for both years.

Short-term securities in portfolios where the primary purpose is to facilitate the placement of funds in long-term investments are classified as investments.

**Receivables** -- Receivables consist primarily of contributions owed and yet to be remitted by the employing districts, pending investment trades and interest and dividends.

**Method Used to Value Investments** -- Investments are reported at fair value on a trade date basis. Securities traded on national exchanges are valued at the last reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. Investments that do not have an established market are reported at estimated fair value.

**Fixed Assets** -- The building and other fixed assets are stated at cost less depreciation accumulated since their acquisition and do not purport to represent replacement or realizable value. Costs of major additions and improvements are capitalized. Expenditures for maintenance and repairs are charged to operations as incurred. Depreciation is calculated using the straight-line method, with estimated lives ranging from three to forty years in the following major classes: computers and software, three years; vehicles, five years; equipment, five years; building and land improvements, fifteen years; building, forty years.

Compensated Deferred Absences -- Expenses for accumulated annual leave earned by PSRS employees are recorded when earned by the employee. Upon termination of employment, an employee will receive compensation for days of unused annual leave limited by the number of annual leave days which can be accumulated in two years of employment.

## Note 3 -- Plan membership and contributions

PSRS had 552 contributing employers in 1996 and 557 in 1995. (The decline on contributing employers was a result of consolidation of school districts.) The membership and benefit recipients served by the retirement system consisted of:

	199	96	199	95
Retirees and beneficiaries currently receiving benefits		22,132		21,394
nactive vested members entitled to (not yet receiving) b	enefits	3,409		3,186
Active members:				
Fully vested	46,426		45,850	
Non-vested	18,198		17,004	
Total active members		64,624		62,854
Other inactive members		2,485		2,142
otal	_	92,650	_	89,576

During the 1995-96 fiscal year, members contributed 10.5% of their annual covered salary. The contribution rate for 1994-95 was 10%. The employing districts are required to match the contributions made by their employees. The contribution rate is set each year by the Board of Trustees upon the recommendation of the independent actuary acting within the contribution restrictions in Chapter 169.030 RSMo. Administrative costs are financed through investment earnings. Contributions for employees of the State of Missouri were made by the State in accordance with the actuarially determined contribution rate as authorized in Chapter 104.342.8 RSMo necessary to fund current costs and prior service costs of state employees.



## Note 4 -- Designations of Net Assets Held in Trust for Pension Benefits

The system designates the Net Assets Held in Trust for Pension Benefits for specific purposes.

	<u> 1996 </u>	<u>1995</u>
Designated for Members' Contributions Accumulation of active and terminated member deposits plus interest.	\$3,098,447,617	\$2,856,389,033
Designated for the Payment of Benefits to Present Retirees Transfers from Member Reserves at retirement and an actuarially determined transfer from the Operating Reserve to fund the system's obligation for benefit payments and cost-of-living adjustments to current retirees and beneficiary recipients.	4,263,970,849	3,703,808,688
Designated for Additional Deposit Annuities Accumulation of the additional deposits over and above the contributions required by law. Payments from this reserve are made as a defined contribution annuity.	1,879,837	1,998,589
Designated for Operating Expenses/Benefits to Future Retirees Accumulation of employer contributions and investment income used to fund future benefit payments, interest on member accounts and administration and maintenance expenses of the system.	4,954,820,032	4,274,240,941
Designated for Lynch Class Action SettlementMoney designated to be distributed under the settlement agreement and the earnings on those funds	170,485	
Net Assets Held In Trust For Pension Benefits	\$12,319,288,820	\$10,836,437,251

### Note 5 -- Investments

**Authorization of Investments** -- PSRS funds in excess of a safe operating balance are invested by the investment agents under policies and procedures established by the Board of Trustees. Chapter 169.040 RSMo, as amended effective August 13, 1984 authorizes any investment which a prudent person acting in a like capacity and familiar with similar matters would use in the conduct of an enterprise of a like character and with like aims. Any person with fiduciary responsibility with respect to the retirement system is covered by this "prudent person" rule.

### June 30, 1996

The following table presents a summary of the custodial credit risk for the system's investments. All categorized investments are registered or held by the system's custodial agent in the name of PSRS. A security for purposes of credit risk disclosure is a transferable financial instrument that evidences ownership or creditorship. "Securities" do not include investments made in open-end pooled funds. Such investments are shown below as "not categorized."

	Total	
	Fair Value	
Investments - Categorized		
Municipals	\$ 999,	500
FHAVA Mortgages	46,9	969
US Government and Agencies	1,258,221,	574
Domestic Fixed Income	492,032,	730
Domestic Equities	1,978,093,0	022
International Equities	1,080,104,8	872
REITs	4,015,2	287
nvestments Held in Pooled Arrangements- Not Categorized		
U.S. Government and Agency Securities	1,585,367,6	637
Domestic Corporate Fixed Income Securities	2,202,096,4	414
Domestic Equities	2,227,139,7	765
International Equities	743,185,	375
Securities Lending Short Term Collateral Pool	1,755,209,6	366
Cash & Cash Equivalents	869,966,6	669
Total	\$ 14,196,479,4	480



## June 30, 1995

PSRS investment securities with a market value of \$8,438,200,507 were classified into these categories of custodial credit risk:

- 1. Insured or registered, or securities held by PSRS or its agent, in the registered name of PSRS.
- Uninsured and unregistered, with securities held by the counter party's trust department or agent in the name of PSRS.
- 3. Uninsured and unregistered, with securities held by the counterparty or by its trust department or agent but not in the name of PSRS.

	Cate	Category		
	1	3		Fair Value
Investments - Categorized				
Repurchase Agreements	-	597,353,921		597,353,921
U.S. Government and Agency Securities	2,804,628,648	-		2,804,628,648
Domestic Corporate Fixed Income Securities	1,362,143,673	156,676,245		1,518,819,919
Municipal Bonds	61,327,672	-		61,327,672
FHA/VA Mortgages	154,292	-		154,292
Domestic Equities	3,100,875,838	-		3,100,875,838
REIT's	3,269,775	-		3,269,775
International Equities	276,072,835	· -		276,072,835
Cash Equivalents - U.S. Treasury Bills	75,697,608	-		75,697,608
	\$ 7,684,170,341	\$ 754,030,166		8,438,200,507
nvestments Held in Pooled Arrangements- Not Cat	egorized			
U.S. Government and Agency Securities	-9		\$	2,163,837,664
Domestic Corporate Fixed Income Securities				24,275,794
Domestic Equities				163,840,269
Domestic Equities International Equities				
·			\$	37,186,085
International Equities			\$	163,840,269 37,186,085 1,682,722,412 515,729,045
International Equities Securities Lending Short Term Collateral Pool			\$	37,186,085 1,682,722,412

There were no investments (other than US Government and US Government-backed obligations) in securities of any one corporation representing more than 5% of the system's net assets at the end of either year.

During 1994-95 and from July 1, 1995 to November 30, 1995, PSRS participated in the Short-Term Investment Fund (STIF) of Boatmen's Trust Company of St. Louis, Missouri. On December 1, 1995 PSRS investments were transferred to the State Street Bank of Boston. In 1994-95 and the first part of 1995-96 during our participation in the Boatmen's STIF, investments of the STIF included dual indexed notes, range floaters, CMT indexed floaters, capped re-set floaters, and inverse floaters. On June 30, 1995 such investments made up less than 5.5% of the fund. The credit and market risks associated with these instruments were abrogated by the assurance of Boatmen's Trust Company that the rate of return to PSRS on the STIF fund would, at a minimum, be 10 basis points above the effective Federal Fund rate. Boatmen's covered any shortfalls in the rate of return caused by these investments. The PSRS participation averaged 38% of the STIF fund.

Securities Lending -- Under the "prudent person" authority of the governing statutes and in accordance with policies set by the Board of Trustees, PSRS lends its securities to broker-dealers with a simultaneous agreement to return the collateral for the securities in the future. The system's custodian is authorized to lend available securities to authorized broker-dealers subject to the receipt of acceptable collateral. The system lends securities similar to the type on loan at year-end for collateral in the form of either cash or other securities. Borrowers are required to provide collateral amounts of 102% (domestic equities and bonds, US government and agency instruments) and 105% (international equity instruments) of the value of the securities lent. The system does not have the ability to pledge or sell collateral securities unless in the event of borrower default. The system is unindemnified in the event the borrower fails to return the securities lent or fails to pay the system for income distributions by the securities' issuers while the securities are on loan. Net securities lending income during the 1995-96 fiscal year was \$2,817,038 and \$1,307,798 during 1994-95.



Securities lending loans as of June 30, 1996 with a market value of \$1,779,794,467 and a collateral value of \$1,807,122,428 and security lending loans as of June 30, 1995 with a market value of \$2,389,139,812 and collateral value of \$2,430,112,255 could be terminated on demand by either the system or the borrower. There were no terminated loans at the end of either fiscal year. During 1994-95 the maturity of the security loans were matched generally with the term to maturity of the investment of the cash collateral. The system currently participates in a collateral pool with other entities. This makes it difficult to determine a relationship between the maturities of the investment pool and the system's loans. At year-end 1996, the system had no credit risk exposure to borrowers.

**Contingent Income Designation** -- Prior to 1994-95, the system deferred recognition on gains and losses of fixed income and some equity income and amortized the recognition over a twenty-year period. This designation, called the "Contingent Reserve," was determined to be incompatible with generally accepted accounting principles and the reserved income recognized as an extraordinary event for the 1994-95 fiscal year.

## Note 6 -- Additional Deposits Program

Section 169.035 RSMo provides for an additional deposits program. Members may make payments above the required defined benefit contribution amount to the retirement system in order to provide a monthly annuity at retirement based on the total of the deposits and interest.

This annuity is in addition to the defined benefit allowance provided by the system. Contributions to the program are tax-sheltered. As of September 1, 1996, new deposits to the additional deposits program were limited to the thirteen members currently with deposits in the program. Only two members made contributions to the program during 1995-96.

The deposits to the program are included in the investment program of the PSRS defined benefit program. The additional deposits program's basis of accounting and asset valuation is identical in the defined benefit program.

## Note 7 -- Retirement plan

All full-time employees of PSRS holding a valid Missouri teaching certificate are covered by PSRS. Other employees are members of the Non-Teacher School Employee Retirement System (NTRS), an adjunct cost-sharing multiple-employer defined benefit pension plan. NTRS provides retirement and disability benefits, annual cost of living adjustments and death benefits to plan members and beneficiaries. Chapter 169, RSMo contains the statutory provisions of NTRS. NTRS issues a publicly available financial report that includes financial statements and required supplementary information of NTRS. That report may be obtained by writing to the Non-Teacher School Employee Retirement System, PO Box 268, Jefferson City MO 65102, or by calling 1-800-392-6848.

NTRS members are required to contribute 4% of their annual covered salary and PSRS is required to match that amount. The contributions are established and may be amended by the PSRS Board of Trustees sitting as the governing board of NTRS. PSRS' contribution to NTRS totaled \$53,187 for the 1995-96 fiscal year and \$41,440 for the 1994-95 year, amounts equal to the required contributions.

PSRS members were required to contribute 10.5% of their annual covered salary during 1995-96 and 10% during 1994-95. The retirement system was required to match that amount. PSRS's contribution because of employees covered by the system totaled \$25,590 for the 1995-96 fiscal year and \$19,626 for 1994-95, amounts equal to the required contributions.

## Note 8 -- Deferred Compensation

The employees of PSRS may participate in a deferred compensation plan created in accordance with Internal Revenue Code Section 457. This plan, available to all employees of the Board of Trustees, permits the deferral of a portion of their salary until future years. The deferred compensation is not available to the employees until termination, retirement, death or an unforeseeable emergency. All compensation deferred under the plan is solely the property of PSRS. Participants' rights under the plan are equal to those of general creditors.

The plan assets are invested as directed by the plan participants in a variety of fixed and variable annuity options offered by Nationwide Life. It is the opinion of counsel for PSRS that PSRS is not liable for losses in the value of assets under the plan, but does have the duty of due care in establishing and operating the plan.



## Note 9 -- Commitments and Contingencies

Savannah R-III School District, et al., v. Public School Retirement System -- The system collects contributions and calculates benefits considering employer-paid health insurance premiums as a part of compensation. In 1988 several school districts filed suit against the system, requesting refund of the employer contributions which were attributable to those premiums. The litigation was later broadened to include members and retirees, and conditionally certified as a class action. The issue was also narrowed to include only contributions from April 1983 forward. The assertion has been made by the plaintiffs that benefits should be calculated on compensation which includes the premium amounts, even if refunds are ultimately granted as requested. In October 1995 the Missouri Court of Appeals for the Western District decided that the collection of contributions on employer-paid health insurance premiums was improper. The court did not address the issues of whether refunds must be made, whether any adjustment in benefits is required, or to whom refunds or adjustments of benefits apply, but remanded the case to the circuit court for further proceedings.

Before the circuit court held any proceedings Senate Bill 857 (SB857) was enacted. SB857 made clear that employer-paid health insurance is to be included in the compensation base. The bill also provided that contributions made before the effective date of SB857 would be deemed in compliance with statutory provisions, and that the system would make no refunds or adjustment in benefits as a result of prior treatment of employer-paid health insurance or medical benefits. On the basis of SB857 the circuit court dismissed the suit.

The plaintiffs have appealed the dismissal to the Missouri Supreme Court, challenging the constitutionality of SB857. That appeal will likely be presented to the court in the first half of 1997. It is not possible at this point to predict the range of possible outcomes. In the event that plaintiffs succeed with all asserted claims, it may be projected, however, that the result could have a material financial impact on the system.

## Note 10 -- Related Party transactions

PSRS provides building space, equipment and services to the Non-Teacher School Employee Retirement System of Missouri for a fee which is recorded as other income. Total proceeds for 1995-96 were \$200,000 and were \$150,000 in 1994-95.



## **SCHEDULE OF FUNDING PROGRESS**

(Dollar amount in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
6/30/91	\$ 6,103,139	\$ 7,534,308	\$ 1,431,169		\$ 1,750,191	81.8%
6/30/92	6,878,981	8,372,049	1,493,068	82.2%	1,809,458	82.5%
6/30/93	7,787,379	8,956,488	1,169,109	86.9%	1,867,948	62.6%
6/30/94	9,177,070	9,969,759	792,689	92.0%	1,996,908	39.7%
6/30/95	10,193,084	10,981,822	788,738	92.8%	2,137,134	36.9%
6/30/96	11,510,625	12,231,746	721,121	94.1%	2,283,994	31.6%

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended June 30	Annual Required Contribution	Percentage Contributed	
1991	\$ 172,796,383	100%	
1992	179,434,153	100%	
1993	186,293,050	100%	
1994	200,421,872	100%	
1995	211,865,902	100%	
1996	238,630,542	100%	



## NOTES TO THE SCHEDULES OF TREND INFORMATION

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional Information as of the latest actuarial valuation follows:

Valuation date June 30, 1996

Actuarial cost method Entry Age Normal

Amortization method Level Percent, Open

Remaining amortization period 20.5 years

Asset valuation method 5-year smoothed market

**Actuarial Assumptions:** 

Investment rate of return 8.0%

Projected salary increases\* 5.5 - 11.0%\*

\*Includes inflation at 5.5%

Cost-of-living adjustments Contingent upon CPI increases with

a 5.0% annual maximum, subject to cumulative COLAs since retirement

## SCHEDULE OF INVESTMENT EXPENSES

Investment Managers	
Bank of Ireland	\$ 406,744
BlackRock Financial Management, Inc.	34,180
Boatmen's Trust Company	1,530,171
Capital Guardian Trust Co.	755,395
Dalton, Greiner, Hartman, Maher and Co.	691,915
Denver Investment Advisors	933,788
Loomis, Sayles and Co., Inc.	1,808,758
NISA	92,372
Oechsle International	549,937
Scudder, Stevens and Clark, Inc.	616,323
United Missouri Bank	410,565
Total	\$ 7,830,147
Custodian Expenses	
Boatmen's Trust Company	687,962
State Street Bank	29,292
Total	\$ 717,254
Total Investment Consultants	\$ 717,254
	\$ 717,254 154,073
Investment Consultants	



## SCHEDULE OF ADMINISTRATIVE EXPENSES

	1996
Personal Services	\$ 1,865,431
Professional Services	
Actuarial	99,938
Audit	10,600
Computer Consultants	5,726
Insurance Consultants	3,600
Legislative Consultants	10,800
Legal Expenses	627,668
Total Professional Services	758,332
Communications	
Communications	202.005
Information and Publicity Expense Postage Expenses	203,905 79,053
Printing Expenses	79,033 38,173
Staff Field Expenses	77,292
Telephone Expenses	64,622
Total Communications Expenses	463,045
Miscellaneous Expenses	
Building and Utilities Expense	100,495
Insurance Expense	98,506
Office Equipment/Maintenance	47,033
Office Supplies	47,995
Vehicle Maintenance	5,069
Miscellaneous	136,234
Total Miscellaneous Expenses	435,332
Depreciation Expense	240,852
Total Administrative Expenses	\$ 3,762,992

INVESTMENT SECTION







## STRATEGIC INVESTMENT SOLUTIONS, INC.

601 CALIFORNIA STREET, STE. 200 SAN FRANCISCO, CALIFORNIA 94108

MICHAEL R. BEASLEY
MANAGING DIRECTOR

TEL 415/362-3484 FAX 415/362-2752

September 30, 1996

Board of Trustees The Public School Retirement System of Missouri 701 West Main Street Jefferson City, MO 65102

To the Members of the Board:

What a year! The projects undertaken and completed — policy development, asset allocation, custody and manager reviews — should enable the fund to continue to fulfill its mission well into the future. It has been a long and challenging year, but the goals set early in the process have been accomplished.

The restructuring efforts have significantly improved the risk and return characteristics of the System. The Total Fund investment return was 12.8 percent for the fiscal year ended June 30, 1996, trailing the public fund median return of 15.1 percent for the period. Total return for the five-year period ending June 30, 1996 was 11.6 percent, equal to the public fund median. The System underperformed relative to the median during the last fiscal year for a number of reasons. Bonds, as measured by the Lehman Aggregate, returned 5.0 percent for the fiscal year while the stock market, represented by the S&P 500, was up 26 percent. With PSRS' average bond allocation of around 50 percent, we should expect to underperform a median that has a higher allocation to stocks. The costs associated with restructuring the fund also caused some drag on performance that will not be a factor in Fiscal Year 1997. More importantly, the Total Fund outperformed its investment objective of 8.0 percent by 4.8 percent, and outpaced inflation by over 10 percent! These numbers were calculated in compliance with the AIMR Performance Presentation Standards.

Fiscal Year 1997 will prove to be an interesting year for you and the members of the System. SIS, in conjunction with your investment staff and Board of Trustees, will continue to monitor the activities of your newly-hired investment managers and report to you the results of their efforts. As always, thank you for the opportunity to participate in this partnership with you.

Sincerely,

Michael R. Beasley Managing Director



## THE PUBLIC SCHOOL RETIREMENT SYSTEM **OF MISSOURI**

M. STEVE YOAKUM EXECUTIVE DIRECTOR

JOEL M. WALTERS ASST. EXECUTIVE DIRECTOR

December 1, 1996

PATTIE L. PORTERFIELD **ADMINISTRATOR** 

To the Members of the System:

Prior to beginning this, my second annual Investment Officer's Report, I thought it wise to review the information that was conveyed to you in last year's letter. The first sentence of that Report reads. "Several noteworthy events occurred within the investment programs of The Public School Retirement System of Missouri during the fiscal year ended June 30, 1995." A fine introduction, it seemed, and one that could be used again this year by simply changing the date. Upon reflection, the thought of recycling the sentence was quickly dismissed; the Board of Trustees' investment activities during the last fiscal year were not merely noteworthy. Indeed, their efforts were landmark events that have significantly improved the investment profile of the System.

The genesis of these activities began near the end of the last fiscal year, with the hiring of a new investment consultant, the addition of internal investment professionals, and a shift in investment strategy to the use of specialist investment management firms. In last year's Report I stated that, in addition to the change in strategy, the Board of Trustees authorized a review of its Investment Policy, Asset Allocation Policy, and Investment Manager Structure. All of these projects were completed and implemented by the close of Fiscal 1996. Throughout this restructuring, strong emphasis was placed on:

- · optimizing return and risk trade-offs,
- · intensifying the monitoring of investment managers' activities,
- increasing the efficiency of investment operations,
- · minimizing complexity, and
- · maximizing our leverage with the investment community.

These goals have been achieved, and the end result of these activities is a substantially different investment portfolio than that which existed a year ago. The remainder of this Report summarizes the efforts undertaken by the Board over the course of the past year.

## **Investment Policy**

In August 1995, the Trustees adopted a completely revised Investment Policy. This document outlines the investment philosophy and practices of PSRS and was developed to serve as a reference point by which the System's assets will be maintained and enhanced through prudent investments. As part of this Policy the Board adopted the following statements as its Guiding Principles. These Principles, combined with PSRS' Mission Statement and the applicable sections of the Revised Statutes of Missouri, serve as the basic guideline for the Investment Policy:

## **PSRS' Guiding Investment Principles**

- 1. Act in the exclusive interest of the Members of the System.
- 2. Maximize total return within prudent risk parameters.
- 3. Preserve the long-term purchasing power of the fund.

POST OFFICE BOX 268 JEFFERSON CITY, MO 65102

**TELEPHONE** 573-634-5290 TOLL FREE 800-392-6848 OFFICE LOCATION 701 WEST MAIN



## THE PUBLIC SCHOOL RETIREMENT SYSTEM **OF MISSOURI**

M. STEVE YOAKUM EXECUTIVE DIRECTOR

JOEL M. WALTERS ASST. EXECUTIVE DIRECTOR

December 1, 1996

PATTIE L. PORTERFIELD **ADMINISTRATOR** 

To the Members of the System:

Prior to beginning this, my second annual Investment Officer's Report, I thought it wise to review the information that was conveyed to you in last year's letter. The first sentence of that Report reads, "Several noteworthy events occurred within the investment programs of The Public School Retirement System of Missouri during the fiscal year ended June 30, 1995." A fine introduction, it seemed, and one that could be used again this year by simply changing the date. Upon reflection, the thought of recycling the sentence was quickly dismissed; the Board of Trustees' investment activities during the last fiscal year were not merely noteworthy. Indeed, their efforts were landmark events that have significantly improved the investment profile of the System.

The genesis of these activities began near the end of the last fiscal year, with the hiring of a new investment consultant, the addition of internal investment professionals, and a shift in investment strategy to the use of specialist investment management firms. In last year's Report I stated that, in addition to the change in strategy, the Board of Trustees authorized a review of its Investment Policy, Asset Allocation Policy, and Investment Manager Structure. All of these projects were completed and implemented by the close of Fiscal 1996. Throughout this restructuring, strong emphasis was placed on:

- · optimizing return and risk trade-offs,
- · intensifying the monitoring of investment managers' activities,
- · increasing the efficiency of investment operations,
- · minimizing complexity, and
- · maximizing our leverage with the investment community.

These goals have been achieved, and the end result of these activities is a substantially different investment portfolio than that which existed a year ago. The remainder of this Report summarizes the efforts undertaken by the Board over the course of the past year.

## **Investment Policy**

In August 1995, the Trustees adopted a completely revised Investment Policy. This document outlines the investment philosophy and practices of PSRS and was developed to serve as a reference point by which the System's assets will be maintained and enhanced through prudent investments. As part of this Policy the Board adopted the following statements as its Guiding Principles. These Principles, combined with PSRS' Mission Statement and the applicable sections of the Revised Statutes of Missouri, serve as the basic guideline for the Investment Policy:

## **PSRS' Guiding Investment Principles**

- 1. Act in the exclusive interest of the Members of the System.
- 2. Maximize total return within prudent risk parameters.
- 3. Preserve the long-term purchasing power of the fund.

POST OFFICE BOX 268 JEFFERSON CITY, MO 65102 •

**TELEPHONE** 573-634-5290 TOLL FREE 800-392-6848 OFFICE LOCATION 701 WEST MAIN



meet actuarial projections. The table below compares the actual June 30, 1995 asset allocation to the new asset allocation policy adopted by the Board July, 1995:

	Asset	New
	Allocation	Policy
Asset Class	6/30/95	Targets
Domestic Equity Investments - Large Capitalization	30.30%	35.00%
Domestic Equity Investments - Small Capitalization	0.00%	3.00%
International Equity Investments	2.80%	15.00%
Domestic Fixed Income Investments	55.10%	47.00%
Other Investments	5.60%	0.00%
Cash and Cash Equivalents	6.20%	0.00%
	100.00%	100.00%

Further optimization within these asset classes resulted in a combination of both passive and active management techniques. Approximately 41.00 percent of total assets are now invested in passive index replication accounts (while last year no investments were indexed) in each asset class, allowing the System to achieve broad market exposure at very low cost. The remaining 59.00 percent of assets are invested actively by specialist managers, with the goal of earning returns superior to those generated by passive management to further enhance the System's financial wealth. These active managers have all demonstrated a historical ability to add value over passive indices through active security selection and trading strategies. This shift to a combination of active and passive management, along with additional diversification within the broad asset classes, provides the System with a well-defined, prudent investment strategy. Based on the results of this Asset Allocation and Manager Structure analysis, a review of the existing custody and investment manager relationships was necessary.

## **Custody Review**

The first step in the restructuring of the System's assets was a review of the premier Master Trust providers in the country. A competitive analysis of seven major providers was undertaken and their capabilities reviewed with specific emphasis in the following areas:

- Global Asset Custody
- Securities Lending
- Cash Management
- · On-line Reporting Capabilities
- Performance Measurement

Based on the results of this review by Staff and SIS, the Board made a decision in October of 1995 to hire State Street Bank and Trust Company as the System's custody provider. State Street is considered to be one of the marquee providers of custody services in the world with well over \$2 trillion in assets under custody and superior capabilities in Global Custody and Securities Lending. Staff estimates that this custody change should provide significant additional annual revenue to the System over the prior custody relationship, due primarily to a combination of enhanced Securities Lending revenue and aggressive fee negotiations.

## **Investment Manager Reviews**

On completion of the Custody Review, a number of investment manager searches were conducted by Staff and SIS to fill thirteen investment assignments. Early on, a conscious decision was made to 1) hire the most qualified firm for each assignment, and 2) minimize the number of managers hired. The firms were selected from among a total of 964 investment managers that offered the appropriate products in the databases monitored by Staff and SIS. The process utilized in these searches is somewhat unique in that the two parties, Staff and SIS, conducted independent evaluations of potential firms. Joint recommendations to the Board were then developed based on these findings. This procedure not only provided different perspectives on complex projects, but also promoted independent thought and forced objectivity in the selection



process. The end result of these efforts has produced a solid team of some of the most well-respected investment management firms in the industry:

		Percent of Total
Investment Manager	Investment Style	Assets
Domestic Equity:		
State Street Global Advisors	Passive - S&P 500 Index	17.20
Ark Asset Management	Active - Large Cap Value	5.70
Brinson Partners	Active - Large Cap Value	5.70
Alliance Capital Management	Active - Large Cap Growth	5.70
Dimensional Fund Advisors	Active - Small Cap Core	1.85
Thomson, Horstmann & Bryant	Active - Small Cap Core	1.85
International Equity:		
State Street Global Advisors	Passive - "EAFE-Lite" Index	5.00
Bank of Ireland Asset Management	Active - Core	5.00
Oechsle International Advisors	Active - Core	5.00
Domestic Fixed Income:		
State Street Global Advisors	Passive - Lehman Aggregate Index	19.00
Boatmen's Trust Company	Active - Gov't./Corp. Core	11.65
NISA Investment Advisors	Active - Gov't./Corp. Core	11.65
BlackRock Financial Management	Active - Mortgage-backed Securities	4.70
_		100.00

## **A Brief Explanation**

Only six of the thirteen firms in the preceding table have responsibility for domestic equity investments. As you proceed through the Investment Section of this report, you will find that as of June 30, 1996, PSRS had domestic equity assets allocated among ten different investment management firms. The Board selected the new group of domestic equity managers at its regular meeting on June 11 and 12, very near the fiscal year-end on June 30. This brief time span did not allow for a complete transition of assets by the end of the fiscal year, and is the reason why the June 30 roster shows a high number of domestic equity management firms. It is important to note that this situation existed only for a very short time. The manager transitions were completed by the end of July, and only the thirteen managers listed in the table are currently on PSRS' team.

## **Summary**

As reviewed in the preceding paragraphs, the investments of the System have been completely overhauled over the course of the last year. There remains, however, significant work to be done in the development of internal infrastructure to support the investment program. These ongoing efforts include a review of System brokerage expenses, an analysis of asset rebalancing mechanisms, and continuous monitoring of the activities of the recently hired investment managers. In conclusion, the projects undertaken at the direction of the Trustees over the course of the last year have significantly improved the risk and return profile of the investment portfolio. The System's assets are now better positioned to continue to provide you, the Members, with the financial security that you have earned and should rightfully expect.

Respectfully/Subjected

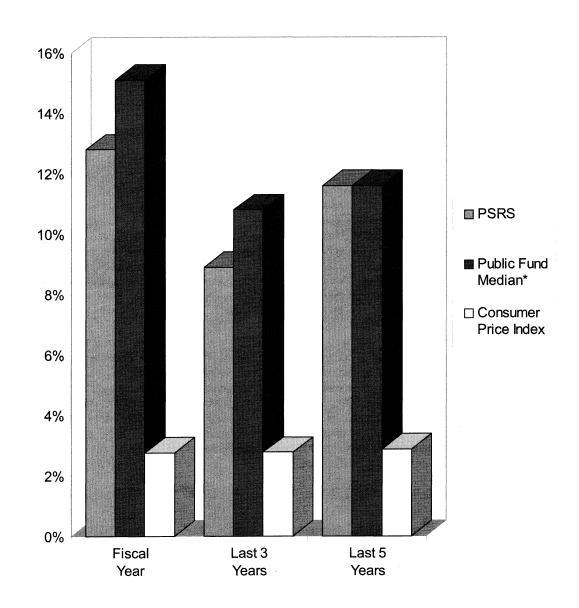
Mark A. Caplinger, FA Senior Investment Officer



# TOTAL FUND INVESTMENT RETURNS Periods Ending June 30, 1996

	Fiscal	Last 3	Last 5
	Year	Years	Years
The Public School Retirement System	12.8%	8.9%	11.6%
Public Fund Median*	15.1%	10.8%	11.6%
Consumer Price Index	2.8%	2.8%	2.9%

<sup>\*</sup> The Public Fund Median is the median return for a large group of public funds monitored by PSRS' external asset consultant, Strategic Investment Solutions, Inc.

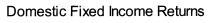


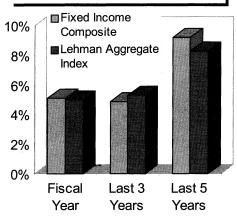


# ASSET CLASS INVESTMENT RETURNS Periods Ending June 30, 1996

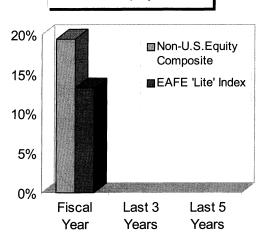
	Fiscal	Last 3	Last 5
	Year	Years	Years
Domestic Fixed Income:			
Domestic Fixed Income Composite	5.1%	4.9%	9.2%
Lehman Aggregate Index	5.0%	5.3%	8.3%
Domestic Equity:			
Domestic Equity Composite	23.1%	16.5%	16.4%
Standard & Poor's 500 Index	26.0%	17.2%	15.7%
Non-U.S. Equity:			
Non-U.S. Equity Composite	19.4%	n/a	n/a
Europe, Australia, Far East (EAFE) 'Lite' Index*	13.3%		

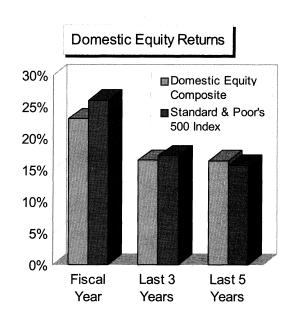
<sup>\*</sup> Custom benchmark: 60% MSCI EAFE ex-Japan; 25% MSCI Japan; and 15% MSCI Emerging Markets ex-Malaysia.





## Non-U.S. Equity Returns



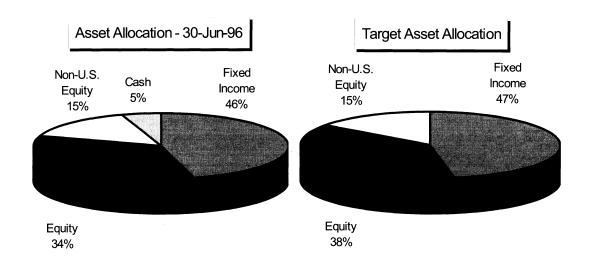




# ASSET ALLOCATION As of June 30, 1996

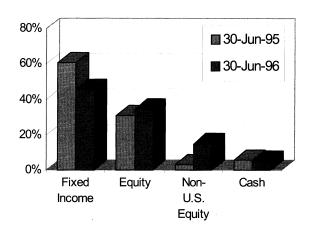
In order to best reflect PSRS' asset allocation, amounts shown here reflect settlement date accounting practices. Total investments include accrued income and exclude securities lending collateral.

	30-Jun-96			
Asset Type	\$ Market Value	% of Total	Target	Difference
Domestic Fixed Income	5,586,786,702	45.7%	47.0%	-1.3%
Domestic Equity	4,213,261,383	34.4%	38.0%	-3.6%
Non-U.S. Equity	1,827,080,840	14.9%	15.0%	-0.1%
Cash & Equivalents	606,622,250	5.0%	0.0%	5.0%
Other Assets	2,428,086	0.0%	0.0%	0.0%
Total Investments	12,236,179,261	100.0%	100.0%	



# Asset Allocation Changes

Asset Type	95	'96
Fixed Income	60.6%	45.7%
Equity	30.9%	34.4%
Non-U.S. Equity	3.0%	14.9%
Cash	5.6%	5.0%
Total	100%	100%





# INVESTMENT MANAGER STRUCTURE As of June 30, 1996

The amounts shown for each manager reflect settlement date accounting practices and include accrued income.

Domestic Fixed Income:	\$ Market Value	Percent
BlackRock Financial Management, Inc.	572,232,713	4.7%
New York, New York		
Boatmen's Trust Company	1,459,781,228	11.9%
St. Louis, Missouri		
NISA Investment Advisors	1,317,550,724	10.8%
St. Louis, Missouri	<u>.</u>	
State Street Global Advisors	2,202,096,413	18.0%
Boston, Massachusetts		
Domestic Equity:		
Alliance Capital Management Corp.	151,470,912	1.2%
Minneapolis, Minnesota	,	,0
Ark Asset Management Co., Inc.	244,379,109	2.0%
New York, New York	, ,	
Boatmen's Trust Company	1,007,297,809	8.2%
St. Louis, Missouri		
Brinson Partners, Inc.	121,708,346	1.0%
Chicago, Illinois		
Dalton, Greiner, Hartman, Maher & Co.	173,654,336	1.4%
New York, New York		
Denver Investment Advisors, Inc.	227,019,349	1.9%
Denver, Colorado		
Keystone Investments	3,962,486	0.0%
Boston, Massachusetts		
Loomis, Sayles & Company	558,551,111	4.6%
Pasadena, California	0.477.504.054	47.00/
State Street Global Advisors	2,177,521,851	17.8%
Boston, Massachusetts	2 470 000	0.00/
Thomson Horstmann & Bryant, Inc.	3,478,200	0.0%
Saddle Brook, New Jersey		
Non-U.S. Equity:		
Bank of Ireland Asset Management	615,548,814	5.0%
Dublin, Ireland		
Oechsle International Advisors	637,865,892	5.2%
Boston, Massachusetts	000 004 000	F 401
State Street Global Advisors	622,961,260	5.1%
Boston, Massachusetts		
Cash/Transition Accounts	139,098,708	1.1%

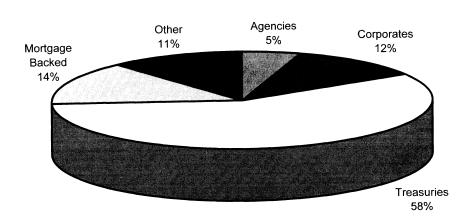


# DOMESTIC FIXED INCOME COMPOSITE INFORMATION As of June 30, 1996

## Composite Summary Statistics

	PSRS	Lehman Aggregate Index
Number of Securities	898	5,492
Coupon	7.06%	7.23%
Yield to Maturity	6.67%	6.95%
Average Maturity (years)	8.00	8.76
Duration	4.81	4.76

## **Sector Allocations**



### Ten Largest Holdings\*

### \* Actively Managed Separate Accounts.

Description	Par	\$ Market Value
U.S. TREASURY BONDS 7.50% MAT. 11/15/16	354,000,000	371,919,480
U.S. TREASURY NOTES 11.50% MAT. 8/15/03	288,045,000	274,316,775
U.S. TREASURY NOTES 14.25% MAT. 2/29/00	265,000,000	271,004,900
U.S. TREASURY NOTES 13.00% MAT. 8/15/05	245,000,000	241,476,900
FHLMC GOLD TBA JUL30 7.50%	135,000,000	133,312,500
U.S. TREASURY NOTES 8.75% MAT. 10/15/97	127,000,000	131,364,990
GNMA TBA JUL30 8.50%	108,000,000	111,036,960
FHLMC GOLD TBA JUL30 7.00%	108,000,000	103,983,480
U.S. TREASURY NOTES 13.00% MAT. 8/15/97	102,000,000	102,669,120
U.S. TREASURY NOTES 6.00% MAT. 5/31/98	85,000,000	84,813,850

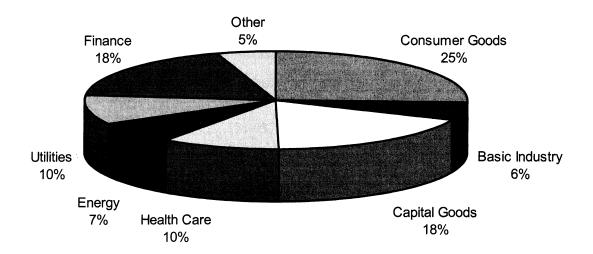


# DOMESTIC EQUITY COMPOSITE INFORMATION As of June 30, 1996

## Composite Summary Statistics

	PSRS	S&P 500 Index
Number of Securities	545	500
Dividend Yield	1.92%	2.10%
Price-To-Earnings Ratio	17.57x	17.65x

## Sector Allocations



### Ten Largest Holdings\*

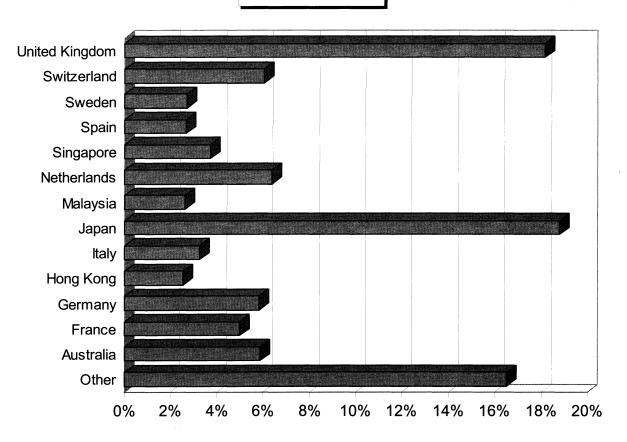
<sup>\*</sup> Actively Managed Separate Accounts.

Description	Shares	\$ Market Value
CITICORP	517,500	42,823,125
CROWN CORK + SEAL INC	904,550	40,704,750
RAYTHEON CO	780,441	40,290,267
CHASE MANHATTAN CORP	561,400	39,648,875
PHILIP MORRIS COS INC	366,200	38,084,800
LOCKHEED MARTIN CORP	414,800	34,843,200
BURLINGTON NORTHERN SANTAFE	420,700	34,024,113
AT+T CORP	540,600	33,517,200
SCHERING PLOUGH CORP	518,100	32,510,775
KIMBERLY CLARK CORP	411,300	31,772,925



# INTERNATIONAL EQUITY COMPOSITE INFORMATION As of June 30, 1996

**Country Allocations** 



## Ten Largest Holdings\*

<sup>\*</sup> Actively Managed Separate Accounts.

Description	Shares	\$ Market Value
CIBA GEIGY AG	24,452	29,792,329
NEWS CORPORATION	4,320,921	24,519,733
HOECHST AG	674,440	22,863,289
ASTRA AB	485,193	21,424,475
MANNESMANN AG	60,397	20,871,170
SANDOZ AG	18,079	20,669,704
CADBURY SCHWEPPES	2,398,000	18,965,417
VODAPHONE GROUP	5,059,300	18,827,445
CITY DEVELOPMENTS	2,360,000	18,392,525
BAT INDUSTRIES	2,349,100	18,268,421

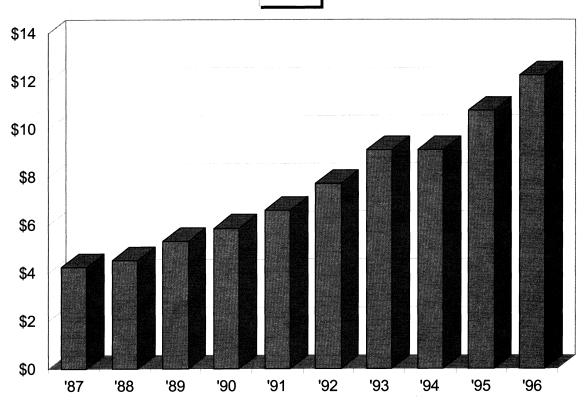


# TOTAL FUND GROWTH Through June 30, 1996

Amounts shown here reflect settlement date accounting practices. Total investments include accrued income and exclude securities lending collateral.

Year	\$ Market Value
1987	4,246,722,750
1988	4,508,861,524
1989	5,328,221,173
1990	5,861,776,572
1991	6,590,234,686
1992	7,721,757,035
1993	9,115,854,751
1994	9,123,945,819
1995	10,765,827,149
1996	12,236,179,261







# **INVESTMENT SUMMARY** Year Ended June 30, 1996

Type of Investment	July 1, 1995 Beginning Book Value	July 1, 1995 Beginning Market Value	Purchases
Fixed Income:			
Government Bonds	\$ 4,673,790,125	\$ 4,853,492,002	\$ 5,746,230,195
Corporate bonds	1,135,122,370	1,154,365,233	557,470,920
Asset Backed Obligations	163,387,112	168,854,328	153,487,363
Mortgage Backed Obligations	233,043,883	239,501,889	1,138,115,143
Non-Security Assets			2,234,219,837
FHA& VAMortgages	163,558	154,292	
Total Fixed Income	6,205,507,048	6,416,367,744	9,829,523,458
Equities:			
Common Stocks	2,529,699,419	3,254,831,107	9,523,499,361
Preferred Stocks	10,800,025	9,885,000	6,236,833
International Equities	299,638,269	313,258,920	1,948,028,159
Total Equities	2,840,137,712	3,577,975,027	11,477,764,353
RET'S	3,565,246	3,269,775	887,306
Cash Balances	0		4,075,480
Cash Equivalents	591,426,652	591,426,652	10,009,138,841
Total Investment	9,640,636,658	10,589,039,198	31,321,389,438
Payables	(29,130,443)	(29,130,443)	
Non-Interest Bearing Cash	(16,209,875)	(16,209,875)	
Non-Interest Bearing Rec.	613	613	
Receivables	107,036,984	107,036,984	
Pending Expenses	(70,862)	(70,862)	
Accrued Income	115,161,534	115,161,534	
Class Action Claims			
FX Contracts Receivable FX Contracts Payable			
Grand Total	\$ 9,817,424,609	\$ 10,765,827,149	\$



Sales	June 30, 1996 Ending Book Value	June 30, 1996 Ending Market Value	% Mkt Value	
\$ (8,194,290,766)	\$ 2,225,729,554	\$ 2,209,506,589	17.76%	
(1,329,101,064)	363,492,226	357,719,046	2.88%	
(194,999,640)	121,874,835	134,313,684	1.08%	
(738,172,489)	632,986,537	635,082,121	5.10%	
(183,810)	2,234,036,027	2,202,096,413	17.70%	
(116,590)	46,969	46,969	0.08%	
(10,456,864,359)	5,578,166,147	5,538,764,822	44.52%	
(8,195,582,556)	3,857,616,223	4,199,031,138	33.75%	
(10,800,025)	6,236,833	6,201,650	0.05%	
(538,238,910)	1,709,427,518	1,823,290,247	14.66%	
(8,744,621,491)	5,573,280,574	6,028,523,035	48.46%	
(328,519)	4,124,033	4,015,288	0.03%	
	4,075,480	4,084,504	0.03%	
(9,734,683,329)	865,882,165	865,882,165	6.96%	
(28,936,497,698)	12,025,528,398	12,441,269,813	100%	
	(2,066,684,271)	(2,066,696,084)		
	0	0		
	0	0		
	1,799,459,365	1,799,447,806		
	0	0		
	61,867,554	61,891,513		
	0	0		
	278,116,843	277,029,023		
	(278,116,843)	(276,762,812)		
\$	\$ 11,820,171,047	\$ 12,236,179,259		



## BROKERAGE COMMISSIONS PAID Year Ended June 30, 1996

Brokerage Firm	Commissions
Morgan Stanley and Co, Inc	\$ 831,750
Goldman Sachs	695,224
National Financial Services Corp	423,912
UBS Securities Inc	247,409
Merrill Lynch Pierce Fenner & Smith	236,808
Jefferies & Co	232,923
Salomon Brothers Inc	221,879
Bernstein Sanford C & Co Inc	198,209
Lehman Bros Inc	184,050
Instinet	182,733
Peregrine Securities	133,242
Bear, Stearns Security Corp	126,994
CS First Boston Corp	122,369
Smith Barney Inc	120,717
Merrill Lynch International	103,874
Paine Webber	102,190
HG Asia Securities Ltd	95,052
Lewco Secs Agent for Wertheim Shcroder	92,311
Bridge Trading	90,522
Investment Technology Group	90,354
Cantor Fitzgerald	79,470
Prudential Securities	74,654
Natwest Securities	65,778
Standard & Poors	65,684
Donaldson, Lufkin	64,854
Weeden & Co	58,731
County Securities Ltd	55,712
Morgan, J.P.	55,388
First Boston Co	54,529
Julius Baer Securities	54,442
Ing Baring	52,411
SG Warburg	50,376
Nomura Securities	50,183
Others (< \$50,000)	1,220,886
TOTAL	\$ 6,535,619

## **INVESTMENT EXPENSES** Year Ended June 30, 1996

	Assets Under			1995-96	
	Management June 30			Fees	
Investment Manager Fees					
Fixed Income	\$	5,536,337,603	\$	1,756,497	
Equity		4,209,248,075		3,609,549	
International Securities		1,825,717,467		2,283,665	
Short-Term		869,966,669		180,436	
Other Investment Expenses:					
Custodial Fees				712,453	
Investment Consultant Fees				141,714	
Security Lending Fees					
Agent Fees				781,913	
Broker Rebates			Ş	90,423,321	
Miscellaneous Expenses				17,160	
Total Investment Expenses			\$ 9	99,906,708	

ACTUARIAL SECTION





#### W. ALFRED HAYES AND COMPANY

6828 OAKLAND AVENUE ST. LOUIS, MO 63139-3796

314/647-4777

Board of Trustees Public School Retirement System of Missouri 701 West Main Jefferson City, MO 65101

#### **Actuarial Certification**

We have completed the annual actuarial valuation of the assets and liabilities of the Public School Retirement System of Missouri as of June 30, 1996. Since the previous valuation, legislation has been passed which increased the benefit level for certain active and retired Members and increased the lifetime COLA limit from 65% to 75%. These changes resulted in an increase of approximately 2.6% in the actuarial accrued liability (AAL).

An experience study was performed for the period 1989-1994 pursuant to Missouri statutes. Following this study, I recommended revised actuarial assumptions which were adopted by the Board of Trustees and used for the June 30, 1994 and subsequent valuations. I believe that these assumptions in the aggregate relate very well to past experience and represent a reasonable estimate of future experience of the System. The financing objective of the System is to provide that the burden of paying retirement costs shall be shared equitably by present and succeeding generations of members and taxpayers. Equal contributions are made by the members and by the employers. A funding method based on level percentage of payroll financing is used, formally referred to as the Entry Age Normal Funding Method. A normal cost rate is calculated for each member, providing a level percentage of pay contribution rate from entry to retirement. The actuarial accrued liability (AAL) is the excess of the present value of future benefit payments over the present value of future normal costs. Differences in the past between actual and assumed experience, referred to as actuarial gains and losses, become part of the AAL. The unfunded actuarial accrued liability (UAAL) is the excess of the AAL over the assets. It is the general objective to amortize the UAAL within a 30 year period based on a level percentage of payroll.

The contribution rate is expected to remain level until the UAAL is amortized and then decrease to the normal cost rate.

For purposes of determining actuarial costs, assets have been valued on a five year average of adjusted market values derived from actual market values reported by the System's auditor. The liabilities have been valued based upon member data which is supplied by the administrative staff of the System. We have examined this data to ensure its reasonableness, but have not audited it.

In my opinion the following schedules of valuation results fairly summarize the actuarial condition of the Public School Retirement System of Missouri as of June 30, 1996.

Submitted by,

Kenneth J. Sliment

Fellow of the Society of Actuaries

ACTUARIES AND BENEFIT CONSULTANTS



## **SUMMARY OF JUNE 30, 1996 ACTUARIAL VALUATION RESULTS**

(All Dollar Figures In Thousands)

(a) Active Members	\$ 13,119,513
(b) Retired Members	4,265,851
(c) Inactive Members and other liabilities	201,786
(d) Total	17,587,150
(2) Present Value of Future Normal Costs	5,355,404
(3) Actuarial Accrued Liability: (1) - (2)	12,231,746
(4) Actuarial Value of Assets (includes \$23,699 due from State of Missouri)	11,510,625
(5) Unfunded Actuarial Accrued Liability: (3) - (4)	721,121

The funding procedure for the System involves amortizing the unfunded actuarial accrued liability as a percentage of an expanding payroll (i.e., with increasing dollar contributions), in addition to payment of the normal cost contribution. The following development illustrates how this is done based on a 10.5% contribution rate:

(6) Total Contribution Rate, Member + Employer	21.00%
(7) Normal Cost Rate Due at Mid-Year	19.13%
(8) Approximate Rate Available for Unfunded Actuarial Accrued Liability: (6) - (7)	1.87%
(9) Number of Years Required to Amortize (5) if Covered Payroll Increases 5.5% per year	20.5 years



### **CALCULATION OF GAINS/LOSSES**

For the Year Ended June 30, 1996 (All Dollar Figures in Thousands)

The unfunded actuarial accrued liability is the balancing item in the actuarial valuation and, when compared from year to year, reflects the differences in the actual experience of the System from that which is anticipated by the actuarial assumptions. Thus, if we compare the difference between what the unfunded actuarial accrued liability would have been if all the assumptions were realized, and what it actually is, then we have a measure of the aggregate gain or loss which has been experienced. We can then analyze this aggregate figure, and estimate the values of its various components.

The calculation of the aggregate gain (loss) is summarized as follows:

### A. Calculation of Total Gain (Loss)

	(1)	Unfunded Actuarial Accrued Liability (UAAL), previous year	\$ 788,738
	(2)	Normal Cost for Year	411,491
	(3)	Contributions for Year	(488,484)
	(4)	Interest at 8%:  (a) UAAL  (b) Normal Cost  (c) Contributions  (d) Total	63,098 32,919 (19,539) 76,478
	(5)	Expected UAAL: (1) + (2) + (3) + (4)	788,223
	(6)	Actual UAAL	721,121
	(7)	Gain (Loss) for year: (5) - (6)	67,102
В.		rce of Gains and Losses Asset Gain for Year	396,988
	(9)	Total Actuarial Accrued Liability Gain (Loss) for year: (7) - (8)	(329,886)
	(10)	Analysis of Actuarial Accrued Liability Gain (Loss)  (a) Legislative Changes  (b) Assumption and Method Changes  (c) Experience  (d) Total	(308,985) - (20,901) (329,886)



# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS ADOPTED JUNE 30, 1994

Mortality -

1983 Group Annuity Mortality Table, using separate tables for males and females, with male table rates set back three years and female table rates set back two years in age.

Interest -

8% per annum compound, net of expenses.

Termination -

Sample select and ultimate rates using a three year select period:

	First	Second	Third	After
Age	<u>Year</u>	<u>Year</u>	<u>Year</u>	Three Years
20	14.0%	11.0%	10.0%	3.5%
30	12.0	10.0	8.0	3.1
40	10.0	9.0	6.0	2.1
50	9.0	7.0	4.0	N 8

Salary Increases -

Sample annual rates varying by age:

<u>Age</u>	<u>Increase</u>	<u>Age</u>	<u>Increase</u>
20	11.0%	50	6.0%
30	8.5	60	5.5
40	7.0	65	5.5

Retirement Rates -

Sample rates varying by age, sex and service:

(1)	)	(2)		(3)		
	Age 60 and		Below	<i>i</i> 60,	Before (1)	or (2),
<u>Age</u>	<u>5 Years</u>	<u>Service</u>	<u> After 30</u>	<u>Years</u>	After 55	/25
			<u>Male</u> I	-emale		Male Female
60	25%	30	30%	25%	First Year	20% 17%
62	20	31	15	20	Thereafter	15 15
65	40	32+	15	15		
67	30					
70+	100					

Asset Valuation -

Based on five year average of adjusted market values.

Payroll Increase -

Total covered payroll is assumed to increase 5.5% per year.

Membership is not assumed to increase.

Inflation -

5.5% per annum compound.

Actuarial Method -

Entry Age Normal Funding Method is used. Gains and losses are reflected immediately in the unfunded actuarial accrued liability of the System, and amortized in the future as a level percentage of payroll.

payroll.

Other -

In addition to the above, other assumptions are made with respect to the incidence of disability, the rates of retirement under a special temporary program, mortality of disabled lives, the probability that a member has a spouse, minor children and the ages of the children.



### SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Summary for Seven Years Ended June 30, 1996

Actuarial Valuation Date	Number of Members	Covered Annual Payroll (000)	Average Annual Salary	% Increase In Average Salary	Average Attained Age	Average Years of Service
6/30/90	55,888	\$1,652,719	\$29,572	4.9%	41.8	12.0
6/30/91	56,908	1,750,191	30,755	4.0%	42.0	12.1
6/30/92	57,711	1,809,458	31,354	1.9%	42.2	12.2
6/30/93	58,493	1,867,948	31,935	1.9%	42.3	12.3
6/30/94	60,595	1,996,908	32,955	3.2%	42.5	12.3
6/30/95	62,854	2,137,134	34,002	3.2%	42.5	12.3
6/30/96	64,624	2,283,994	35,343	3.9%	42.6	12.3

### SHORT-TERM SOLVENCY TEST

Summary for Seven Years Ended June 30, 1996 (All Dollar Figures in Thousands)

A short-term solvency test is one way to verify that a System is making progress under its funding procedures. The System's present assets are compared with: (1) active members' contributions on deposit, (2) the liabilities for future benefit payments to present retirees and beneficiaries, and (3) the employer financed portion of liabilities for service already rendered by active members. Whenever level percentage of payroll financing has been followed, generally the present assets should cover (1) and (2) and a portion of (3). The percentage of (3) that is covered will vary depending on benefit improvements, plan experience and changes in assumptions or methods.

#### Actuarial Accrued Liabilities for:

Actuarial Valuation	Member	Current Retirees &	Active & Inactive Members, Employer Financed	Net Assets Available		ntage of A	
Date	Contributions	Beneficiaries	Portion	for Benefits		et Assets	-
	(1)	(2)	(3)		(1)	(2)	(3)
6/30/90 6/30/91 6/30/92 6/30/93 6/30/94 6/30/95 6/30/96	\$1,780,289 1,983,631 2,191,277 2,384,406 2,616,067 2,856,389 3,098,448	\$1,997,340 2,262,801 2,635,808 2,980,210 3,206,061 3,705,807 4,265,851	\$3,049,513 3,287,876 3,544,964 3,591,872 4,147,631 4,419,626 4,867,447	\$ 5,428,265 6,103,139 6,878,981 7,787,379 9,177,070 10,193,084 11,510,625	100% 100 100 100 100 100 100	100% 100 100 100 100 100	54.1% 56.5 57.9 67.5 80.9 82.2 85.2



# SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM RETIREMENT ROLLS

Ten Years Ended June 30, 1996

		Added to Rolls	Removed from Rolls	Rolls End of Year
1996	Service Retirees	1,344	693	20,075
	Disability Retirees	44	35	567
	Beneficiaries	150	72	1,490
1995	Service Retirees	1,141	680	19,424
	Disability Retirees	34	32	558
	Beneficiaries	152	66	1,412
1994	Service Retirees	1,021	676	18,963
	Disability Retirees	35	39	556
	Beneficiaries	130	63	1,326
1993	Service Retirees	1,269	554	18,618
	Disability Retirees	45	30	560
	Beneficiaries	110	63	1,259
1992	Service Retirees	1,119	599	17,903
	Disability Retirees	33	43	545
	Beneficiaries *			
1991	Service Retirees	1,067	563	17,383
	Disability Retirees	28	25	555
* *	Beneficiaries *			
1990	Service Retirees	949	532	16,879
	Disability Retirees	37	28	552
	Beneficiaries *			
1989	Service Retirees	1,064	513	16,462
	Disability Retirees	31	30	543
	Beneficiaries *			
1988	Service Retirees	951	535	15,911
	Disability Retirees	25	39	542
	Beneficiaries *			
1987	Service Retirees	1,022	492	15,495
	Disability Retirees	32	27	556

<sup>\*</sup> Information prior to 1992-93 not available



### **SUMMARY PLAN DESCRIPTION**

The Public School Retirement System of Missouri (PSRS) became operative July 1, 1946. It was established by an Act of the Missouri Legislature, and is governed by Chapter 169 of the Revised Statutes of Missouri. Its purpose is to provide benefits to members and their dependents at retirement or in the event of death or disability.

PSRS is a defined benefit plan funded on an actuarial reserve basis, which guarantees availability of funds to pay benefits as prescribed by law. The system is established as an independent board and is not subject to direction by any state agency. Administrative expenses are paid entirely out of investment earnings.

#### **ADMINISTRATION**

The administration of PSRS is vested in a seven-member Board of Trustees, composed of three elected PSRS members, one elected Non-Teacher School Employee Retirement System (NTRS) member, two persons appointed by the State Board of Education (one of whom must be a retired PSRS or NTRS member) and the State Commissioner of Education. The Board appoints an Executive Director who is responsible for employment of the retirement office staff, routine operation of the system, and advising the Board on all matters pertaining to the system.

#### MEMBER PARTICIPATION

PSRS membership is automatic, regardless of position, for certificated full-time employees of public school districts in Missouri except the St. Louis and the Kansas City school districts, public junior college districts in Missouri, and the Board of Trustees of the retirement system. Certificated part-time employees whose services would qualify them for membership in the Non-Teacher School Employee Retirement System may elect instead to become members of PSRS.

Members working in covered employment are considered *active* members. Such members contribute 10-1/2 percent of gross salary to PSRS. The contributions are deducted and remitted by the employer, and are credited by PSRS to individual member accounts. Since July 1, 1989 member contributions have been tax-deferred for federal and state income tax purposes under IRC 414(h)(2). Contributions are not considered income for such purposes until they are paid as a lump sum refund or monthly benefits.

Members not working in covered employment are considered inactive members.

Interest at a rate set each year by the Board of Trustees is credited to individual member accounts each June 30 on the previous June 30 balance. The rate credited on June 30, 1996 was 6%.

In addition to credit earned for covered service, members may purchase credit in various categories including several types of leave, outside school service, other public and private employment, active U.S. military duty, and service under the federal Uniformed Services Employment and the Re-employment Rights Act of 1994 (USERRA).

#### **EMPLOYER PARTICIPATION**

The employers served by PSRS withhold members' contributions from salary payments and match those contributions at a current rate of 10-1/2 percent of payroll. Employer contributions and investment earnings on those funds are placed by PSRS in a general reserve account to pay monthly benefits to retirees and to beneficiaries of deceased members. Employers are responsible for remitting contributions promptly and for furnishing contribution information and new membership records to PSRS. Employers also provide needed data when members apply for benefits or for refunds upon termination of employment.

### SURVIVOR BENEFITS

The designated beneficiary of a member who dies before retirement is eligible for a lump sum refund of the member's contributions and interest. If the beneficiary is an eligible dependent and the member dies while in covered employment with at least two years of credit for such service, or while eligible for disability retirement benefits, monthly survivor benefits based on a percentage of the member's salary for the last full year of covered service can be elected instead of the contribution refund.

In lieu of a lump sum refund or monthly survivor benefits, spouses of certain deceased members and disability retirees may elect to receive monthly benefits under the Option 2 retirement plan. Such benefits are payable when the member would have been eligible for early or normal retirement.



#### **REFUND OF CONTRIBUTIONS**

Member contributions and interest are fully refundable upon termination of service or death. All credit and benefit rights are forfeited upon voluntary withdrawal or automatic termination of membership.

A member may, upon returning to covered employment, reinstate the credit forfeited through termination of a previous membership by repaying the money refunded plus interest.

#### MEMBERSHIP TERMINATION

Membership is terminated by death, retirement, withdrawal of contributions, or absence from covered employment by a non-vested member for five consecutive school years.

#### **DISABILITY RETIREMENT BENEFITS**

Disability retirement benefits are payable to eligible members who because of permanent disability are unable to earn a livelihood in any occupation. In most instances, the disability retirement benefit is calculated at 50 percent of the member's salary for the last full year of creditable service.

#### SERVICE RETIREMENT BENEFITS

Service retirement benefits are payable to members who have terminated covered employment and have met certain eligibility requirements.

BENEFIT FORMULA—All service retirement benefits are based on a formula which multiplies final average salary by the applicable formula factor, by the years of credit and, in the case of early retirement, by an age reduction factor. Final average salary is obtained by dividing the total salaries for the five highest consecutive years of service by 60; the applicable factor is determined by the type of retirement eligibility; total credit is the amount accumulated at retirement for covered service and purchased credit; and the age factor, where applicable, is determined by the age at retirement.

NORMAL RETIREMENT—A member may retire with benefits calculated under the standard (.023) formula factor at age 60 with 5 years of credit, at age 55 with 25 years of credit, or at any age with 30 years of credit. A special provision in effect until July 1, 1998 allows members under age 55 with 25 years of credit to retire with benefits calculated under a modified formula factor ranging from .020 to .022 but with no age reduction factor applied.

EARLY RETIREMENT—A member may retire with benefits calculated under the standard (.023) formula with an age reduction factor applied, at age 55 with 5 years of credit or at any age with 25 years of credit.

PAYMENT OPTIONS—A retiring member may elect to receive the maximum benefits payable under the Single Life option, or may elect to receive a reduced benefit under one of three Joint-and-Survivor options or under one of two Term-Certain options, to provide survivor benefit coverage in varying degrees after the retiree's death.

Certain benefit minimums apply to normal or early retirement with 15 or more years of credit. The minimums for 15 but fewer than 25 years of credit are reduced if a Joint-and-Survivor or a Term-Certain option is elected and/or if an age factor is applicable because of early retirement. The minimums for 25 or more years of credit are reduced only if a Joint-and-Survivor or a Term-Certain option is elected.

#### POST-RETIREMENT INCREASES

Cost-of-living adjustments (COLAs) are provided beginning the fourth January after retirement to service and disability retirees, and to Joint-and-Survivor beneficiaries of deceased retirees. The annual COLA, not to exceed 5%, is based on the increase in the cost of living as measured by the Department of Labor Consumer Price Index for the previous fiscal year, and is applied to the current benefit of each eligible recipient. Lifetime COLAs are limited to 75% of the original retirement benefit.

#### **HANDBOOK**

A handbook containing detailed information concerning the retirement program can be obtained from the retirement office upon request.

S T A T I S T I C A L S E C T I O N







## **REVENUES BY SOURCE**

(Dollars in thousands)

	Employee	Employer	Investment	Other	
Year	Contribution	Contributions	Income	Income	Total
1987	132,112	132,112	359,545		623,769
1988	146,849	146,849	394,988		688,686
1989	154,633	154,633	466,788		776,054
1990	164,087	164,087	522,124		850,298
1991	175,914	175,914	555,852		907,680
1992	179,604	179,604	659,834		1,019,042
1993	190,865	186,293	808,048		1,185,206
1994	205,230	200,422	740,602		1,146,254
1995	222,124	211,866	1,468,062	* 541	1,902,593
1996	249,854	238,631	1,370,448	25,681	1,884,614

<sup>\*</sup> Includes recognition of previously deferred income and unrealized gains/losses as a result of adoption of GASB Statement 25.

## **EXPENSES BY TYPE**

(Dollars in thousands)

	Monthly	Lump-Sum	Adminstrative		
Year	Benefits	Refunds	Expenses*	Other	Total
1987	129,839	20,299	1,169		151,307
1988	144,464	121,966	1,471		267,901
1989	159,607	20,405	2,025		182,037
1990	176,846	38,582	1,832		217,260
1991	198,910	30,420	2,259		231,589
1992	226,483	18,883	2,390		247,756
1993	252,529	18,001	2,467		272,997
1994	271,798	18,681	2,287		292,766
1995	300,612	19,731	2,801	1	323,145
1996	349,698	23,756	3,763	25,045	401,762

<sup>\*</sup> Does not include investment fees and expenses



# SCHEDULE OF RETIREES BY TYPE (as of June 30) AND BENEFITS BY TYPE (for the year ended June 30)

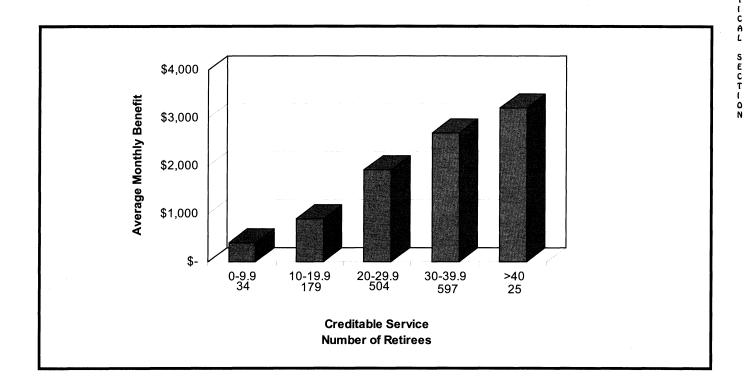
(Dollars in Thousands)

	Service Retirees		Disability	Retirees	Beneficiaries	
Year	Number	Benefits	Number	Benefits	Number	Benefits
1987	15,495	119,984	556	3,876	973	4,212
1988	15,911	133,136	542	4,024	1,041	4,837
1989	16,462	147,677	543	4,308	1,078	5,515
1990	16,879	163,507	552	4,604	1,137	6,227
1991	17,383	184,744	555	4,995	1,196	7,078
1992	17,903	210,379	545	5,392	1,262	8,149
1993	18,618	234,933	560	5,826	1,303	9,299
1994	18,963	254,957	556	6,102	1,372	10,373
1995	19,424	281,897	558	6,427	1,412	11,821
1996	20,075	329,115	567	7,180	1,490	13,403

## **AVERAGE JULY RETIREE STATISTICS**

Year Ending June 30	Regular Retirement Benefit	% Increase From Previous Year	Age	Creditable Service
1987	\$1,348.28	5	60.6	28.1
1988	\$1,408.57	4	60.1	28.2
1989	\$1,506.79	7	60.1	28.0
1990	\$1,617.05	7	60.0	27.1
1991	\$1,763.43	8	59.5	28.4
1992	\$1,716.78	-3	59.3	27.8
1993	\$1,854.29	7	59.0	26.8
1994	\$2,096.35	12	58.8	27.8
1995	\$2,013.36	-3	58.7	26.8
1996	\$2,182.88	8	56.3	27.8

## **AVERAGE MONTHLY BENEFIT FOR 1995-96 RETIREES**



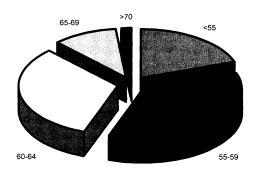
## **SUMMARY OF CHANGES IN RETIREES 1995-96**

	SERVICE RETIREES			<del></del>	DISABILITY RETIREES		
	Male	Female	Total		Male	Female	Total
Retirees, June 30, 1995	6,081	13,343	19,424		162	396	558
Retired during year	512	818	1,330		10	34	44
Retired after resuming teaching	7	7	14		0	0	0
Subtotal	6,600	14,168	20,768		172	430	602
							0
Died during year	-176	-504	-680		-12	-23	-35
Resumed teaching during year	7	-6	-13		0	0	0
Retirees, June 30, 1996	6,417	13,658	20,075		160	407	567
BENEFICIARIES							
	BA	SB1	SB2	SB3			
Recipients, June 30, 1995	1,075	205	114	23			
Additions during year	119	6	18	1			
Removals during year	-43	-9	-15	-4			
Recipients, June 30, 1996	1,151	202	117	20			

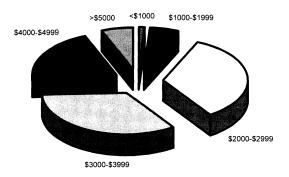


## **ANALYSIS OF 1995-96 RETIREES**

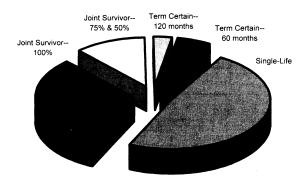
#### 1995-96 SERVICE RETIREES BY AGE



### 1995-96 SERVICE RETIREES BY FINAL AVERAGE SALARY

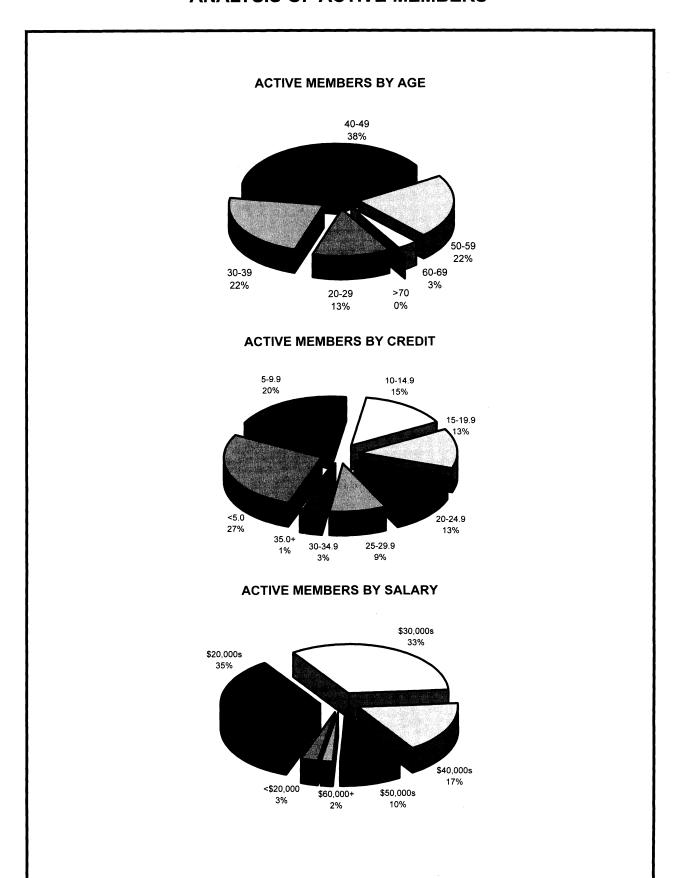


### 1995-96 SERVICES RETIREES BY RETIREMENT OPTION SELECTED



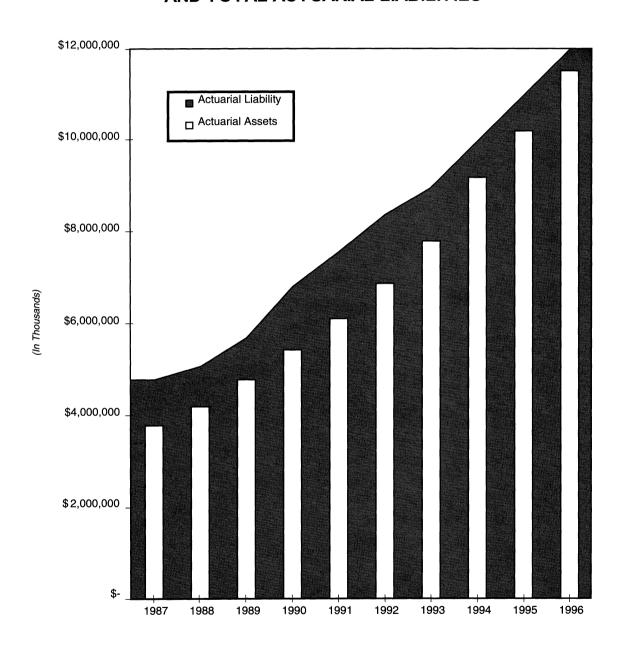


## **ANALYSIS OF ACTIVE MEMBERS**





# COMPARISON OF ACTUARIAL ASSETS AND TOTAL ACTUARIAL LIABILITIES



Public School Retirement System of Missouri 701 West Main Street P.O. Box 268 Jefferson City, MO 65101 800-392-6848 573-634-5290 573-634-7934 FAX